BlackBerry JDE Version 3.6 Release Notes

PLEASE READ THE LEGAL NOTICES SET OUT AT THE END OF THIS DOCUMENT.

This document provides information about the BlackBerry Java Development Environment version 3.6.

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Changes in this release

This section describes changes in the BlackBerry JDE version 3.6 since version 3.2.1.

API additions

The BlackBerry JDE version 3.6 includes the following new APIs:

Package	Description
`net.rim.blackberry.api.mail` `net.rim.blackberry.api.mail.event`	The mail API enables applications to interact with the BlackBerry messages application to send, receive, and open email messages.
`net.rim.blackberry.api.menuitem`	The application menu item API enables applications to add menu items to BlackBerry applications, such as the address book, calendar, and messages.
`net.rim.blackberry.api.pim`	The PIM API enables applications to interact with BlackBerry personal information management (PIM) applications, including address book, tasks, and calendar.

Package	Description
net.rim.blackberry.api.options	The options API enables applications to add handheld option items to the handheld Options application.
net.rim.device.api.crypto net.rim.device.api.crypto.*	The cryptographic APIs provide data security capabilities, including data encryption and decryption, digital signatures, data authentication, and certificate management.
net.rim.device.api.notification	The notifications API provides methods to trigger event notifications and respond to system-wide and application-specific events.
net.rim.device.api.synchronization	The synchronization API enables applications to use the BlackBerry Desktop Software to back up and restore data, or synchronize data with a desktop application.
net.rim.device.api.system	New classes in this package provide functionality such as persistent data storage, interprocess communication (IPC), SMS, network communication using datagrams, and application management.

Tools enhancements

The following enhancements have been made to the BlackBerry JDE:

- **Size limit for .cod files**: There is no longer a size limit of 128 KB for .cod files. A single class still cannot exceed 128 KB (64 KB of code and 64 KB of data, such as images or other resources). A single resource cannot exceed 64 KB.
- **Additional handheld support in simulator**: The BlackBerry JDE includes .dll files for each released handheld type. To simulate a specific handheld model, in the IDE, on the **Edit** menu, click **Preferences**. Click the **Simulator** tab. Click the **Advanced** tab. In the **Simulator Command line** field, change the **OS<version>.dll** command to specify the type of handheld that you want to simulate:
  - For BlackBerry 5800 Series of wireless handhelds, type **OS5800.dll**.
  - For BlackBerry 6700 Series of wireless handhelds on GPRS networks, type **OS6700.dll**.
  - For BlackBerry 6700 Series of wireless handhelds on CDMA networks, type **OS6700.dll /wc**.
  - For BlackBerry 6500 Series of wireless handhelds, type **OS6500.dll /wi**.
- **Email Server Simulator**: The BlackBerry JDE includes an email server simulator (ESS) that enables applications that use the BlackBerry Mail API to send and receive email between the handheld simulator and either a desktop email application, such as Microsoft® Outlook Express, or POP3 and SMTP servers.

  The default PIN that is set in the ESS is incorrect. Change the PIN to **0x2100000A**, which is the default PIN for the handheld simulator. Refer to the *BlackBerry Developer Guide Volume 2* for more information.

  In this release, to send and receive email using the ESS, you must start the handheld simulator from the IDE. You cannot start the simulator using the Start menu short cut or using the `run.bat` file. If you start the handheld simulator from a command prompt, specify the `/rport=0x4d4e` parameter.

- **IDE**: In the Preferences window, on the **Simulator** tab, you must create a new simulator profile before you can change basic or advanced options. To reset the simulator to its default parameters, from the **Profile** drop-down list, choose **Default Simulator**.

Fixed issues

The following issues have been fixed in BlackBerry JDE version 3.6.

Issue #	Description
T3755	The `net.rim.device.api.ui.Keypad.map` and `setMap` methods now handle lowercase letters correctly.
T4462	The `RichTextField.keyChar()` method now works correctly.
T4483	The `Dialog.ask` method now works correctly.
T6870	When the `javax.microedition.lcdui.ItemStateListener` is invoked, the listener now provides a reference to items in a ChoiceGroup that have changed. Previously, the listener returned null.
T7938	The `net.rim.device.api.util.IntMultiMap` default constructor no longer allows duplicate key-value mappings.
T7940	The `net.rim.device.api.util.IntMultiMap` constructor now allows an intial size of 0.
T8539	The default constructor for `net.rim.device.api.ui.component.DateField` now works correctly.
T8674	The constructor for `net.rim.device.api.ui.component.RadioButtonField` now works correctly.

Known issues

The following known issues exist in BlackBerry JDE version 3.6.

Issue #	Description
T3823	The `net.rim.device.api.ui.container.FlowFieldManager.nextFocus` method returns -1 when scrolling vertically towards the first or last field.
T4124	The `net.rim.device.api.ui.component.EditField.isCursorPositionSet()` method returns `false` if the cursor was set programmatically. The method returns `true` if the cursor was set by the user.
T4294	The `net.rim.device.api.component.DateField.setDate` methods allow date values that are outside the valid range specified in the API documentation.
T7528 T7529	The `net.rim.device.api.ui.text.URLTextFilter` methods allow the `%` and `#` characters.
T7942	The `net.rim.device.api.ui.Manager.moveFocus` method performs movements inconsistently.

Issue #	Description
T8247	The `net.rim.device.api.collection.util.UnsortedReadableList.setElements()` method sets size to an incorrect value when an out-of-bounds count is passed to the method. For example, if `setElements( Oject[] elements, -20 )` is invoked, invoking `size()` returns -20. Attempting to read any elements throwns an exception.
T8343	The `net.rim.device.api.system.Bitmap.createBitmapFromBytes` method does not always throw an IllegalArgumentException as specified in the API documentation. If a negative length is provided in the `length` parameter, an `ArrayIndexOutOfBoundsException` is thrown. If a value of 0 is provided for the `scale` parameter, an `ArithmeticException` is thrown.
T9161	The `net.rim.device.api.ui.Screen.invalidate()` method throws an `IllegalStateException` if it is not called from the event thread. As a workaround, the screen must first acquire the event lock or invoke `invokeLater()`.
T10498	The appropriate `AlertListener` method, such `AlertListener.buzzerdone()`, is not invoked after an alert is completed.
T12310	The `net.rim.device.api.ui.text.IPTextFilter` methods do not accept uppercase letters.
T12351	The `net.rim.device.api.synchronization.ConverterUtilities` class does not provide a `readShort` method.
T12620	In the simulator, the `net.rim.device.api.ui.Keypad.getAltedChar` and `getUnaltedChar` methods do not return the correct character on all handheld types. On an actual handheld, the methods return the correct character.
T12858	The compiler that is included with the BlackBerry JDE does not work correctly on computers with a Cyrillic locale set.
T12908	When an invalid style is provided as a parameter to the `net.rim.device.api.ui.Font.derive` methods, the methods return a font with a style that is neither the requested font nor the original font.
T13438	The *IDE Online Help* cannot be printed. Attempting to print can cause the IDE to stop responding.
T13550	Base 4 formatting is inconsistent: when set using `net.rim.device.api.util.NumberUtilities. appendNumber( StringBuffer, long, int )`, the number might return with a negative sign if it is negative, whereas with `appendNumber( StringBuffer, int, int )`, the number does not return with a negative sign.
T13553	The state of a `net.rim.device.api.util.IntMultiMap` is not reset correctly when `IntMultiMap.clear()` is invoked, so further operations can throw an `ArrayIndexOutOfBoundsException`.
T13558	The `net.rim.device.api.util.Arrays.fill(long[] array, long element, int offset, int length)` method does not work correctly. The method does not use the `length` parameter and instead fills the rest of the array with the value of the `element` parameter.
SDR369	The `net.rim.device.api.i18n.MessageFormat.setFormats()` method does not set a new list of sub-formatters.

Issue #	Description
SDR421	The `net.rim.device.api.ui.Screen.scroll()` method always returns `true`, even when focus is not moved to a new field.
SDR569	The `net.rim.device.api.io.SharedInputStream.setCurrentPosition( int currentPosition )` method throws an `IllegalArgumentException` if the `currentPosition` parameter is set to a negative value.
SDR657	The `net.rim.device.api.ui.component.RadioButtonField(String,RadioButtonGroup,boolean)` constructor does not throw a `NullPointerException` if a `null` value is passed in for the `RadioButtonGroup` parameter. The API documentation is incorrect.
SDR3259	The `DeviceInfo.getOSVersion()` method returns the incorrect OS version.
SDR3545	In the BlackBerry Mail API, to list folders of a particular type, do not use the `Folder.OUTBOX` constant. Use `Folder.SENT`.
SDR3780	The `net.rim.device.api.mime.MIMEInputStream.skip(long n)` method throws an `IllegalArgumentException` when `n` is negative. This behavior is not specified in the API documentation.
SDR4590	In the BlackBerry MailAPI, multiple text body parts are not added correctly to a multipart message. Separate body parts are added, but each has the same text as the last body part that is added.
SDR4598	Uninstalling the JDE does not remove shortcuts from the Start menu.
SDR4882	The sample code in the `com_rim_bb_pimdemo` project contains an error. In `EventScreen.java`, in `sendInvitations()` at line 212, the string that is passed to the `toSerialFormat` method should be one of the strings from the array queried from the previous line (the string with the substring 2.0 contained).
SDR5385	When an application opens an `HttpConnection` using the Mobile Data Service, if the host server does not exist, an `IOException` is not thrown. A result code of 400 is returned. When an appication attempts to connect to a Mobile Data Service that does not exist or is unreachable, the connection blocks for approximately two minutes before timing out.
SDR5707	When adding a `StringItem` to a `Form`, a new line is currently inserted. The `Form` does not scroll back to the beginning when an `Item` is inserted.
SDR7628	The `net.rim.device.api.ui.component.LabelField.setText(ResourceBundleFamily family,int id)` method does not work. Other forms of `LabelField.setText` work correctly.
SDR7639	Invoking `net.rim.device.api.ui.container.MainScreen.setTitle(ResourceBundleFamily family, int id)` can cause a `StackOverflowError`. Workaround: Do not invoke this method on the event thread when the containing screen has no title (no previous call to `setTitle` has occurred).

Issue #	Description

SDR7996	When the BlackBerry JDE is installed on Windows NT®, the Mobile Data Service and Email Server Simulators cannot start.
	To correct this problem, add the following code to the start of the `setBMDSEnv.bat` file in the `ESS` and `MDS` folders:
	`set temp=%cd%`
	`if not [%temp%] == "%cd%" goto macroExists`
	`cd > _pwd`
	`for /f tokens="tokens=*" %%f in (_pwd) do set cd=%%f`
	`del _pwd`
	`:macroExists`

SDR8376	When you send email messages from the handheld simulator using the email server simulator, the email message can appear with two "from" addresses in the email client, such as Microsoft Outlook Express. The second "from" address is the PIN of the handheld simulator, and should not appear.
—	MIDlets cannot auto run on startup. In the IDE, in project properties, do not select the **Auto-run on startup** option if **Project type** is set to **MIDlet**.
—	If you write a client application that listens for incoming data from a push application, do not write code that closes and re-opens the network connection after pushed data is received. This approach can cause incoming pushed data to be lost, if data arrives before `Connector.open` is invoked again after a previous push. The `HTTPPushDemo.java` sample included with the BlackBerry JDE, and the sample code in the *Developer Guide*, use the incorrect approach. Visit the BlackBerry Developer Zone knowledge base for an updated code sample.
—	Future versions of BlackBerry handheld software contain a change to the `MD2Digest` class. To prevent future problems with binary compatibility, do not use the `MD2Digest` class directly; instead, use the base class `Digest` and the factory `DigestFactory`.

Additional information

This section provides information in addition to the *BlackBerry Java Developer Guide*.

PIM APIs

The PIM APIs might change in future releases to maintain consistency with the PDAP specification. You might have to modify and recompile applications that use the PIM APIs.

Using the BlackBerry Mail API

Applications that use the BlackBerry Mail API require that the BlackBerry Attachment Service software is loaded onto the handheld. Edit the .alx file to add the `<requires>` tag:

```
<requires id="net.rim.blackberry.api" />
<requires id="net.rim.java.docViewer" />
```

Refer to the *BlackBerry JDE Developer Guide Volume 2*, chapter 2 "Integrating email", for more information.

Distributing files for BlackBerry Mail and PIM APIs

If your application uses the BlackBerry Mail or PIM APIs, you must redistribute updated .cod files for these APIs with your application. The .cod files that are included with desktop software version 3.6 are no longer up-to-date.

An updated installation package for the BlackBerry Mail and PIM APIs is available on the BlackBerry Developer Zone web site. An installer is included that installs the required .cod files to the correct location on the user's desktop. Visit `http://www.blackberry.com/developers` for more information.

Requesting code signatures

In the IDE, you must build all projects in the workspace before you can request signatures. To request signatures, in the IDE, on the **Build** menu, click **Request Signatures**. Refer to the *BlackBerry Java Developer Guide Volume 2 – Advanced Topics* for more information on code signing.

Simulator time

When you invoke `System.currentTimeMillis()`, in the simulator, the time that is returned is the local time of the host machine on which the simulator is running, not GMT. The time returned matches local time, but the time zone in the settings is GMT.

Using .alx files

When the IDE generates an .alx file for a project, it adds a placeholder value in the `<directory>` tag. To load an application using the desktop software, you must first edit the .alx file: either remove the value in the `<directory>` tag (so the .alx file and .cod files must exist in the same folder) or place the .cod file in a subfolder and change the value in the `<directory>` tag to this folder name.

Refer to the *BlackBerry Java Developer Guide Volume 1 – Fundamentals* for more information on generating .alx files and the .alx file format.

Wireless application deployment

To make applications available on a web server for users to download wirelessly, you must set up the web server to set MIME types appropriately:

File	MIME type
.jad files	`text/vnd.sun.j2me.app-descriptor`
.jar files	`application/java-archive`
.cod files	`application/vnd.rim.cod`

Refer to the chapter "Deploying applications wirelessly" in the *BlackBerry Developer Guide Volume 1 – Fundamentals* for more information.

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